



# Missouri Department of Natural Resources Data Processing Policies and Procedures

## Chapter 8 Data Processing

### Standards for Handheld Computing Devices

Effective date

Revised

Number: 8.02-00

July 15, 2003

## Standards for Handheld Computing Devices

All new handheld computing devices must meet all of the minimums presented in this standard. Please ensure you are using the latest copy of this standard, since it may be updated periodically as newer technologies become mainstream and cost effective, or as new applications dictate changes to the minimum standards presented here. Current copies may be obtained from the department's reference library in Lotus Notes.

### REFERENCES

Portions of this standard that apply to handheld devices to be used for communications and scheduling were developed with Lotus Notes interoperability in mind since it is our department standard for electronic mail. Portions of this standard that apply to handheld devices to be used for spatial data collection were developed in consultation with documentation developed by Environmental Systems Research Institute (ESRI). Geographic information systems software developed by ESRI has been chosen as the standard for the state of Missouri, and ArcPad software developed by ESRI for mobile spatial data collection will drive the department's business needs for handheld computing devices used for collecting locational data. Information found in the two documents named below was used in developing the standard that is applicable to spatial data collection devices.

[ArcPad System Requirements](#)

[Using ArcPad](#)

### DEFINITIONS

Handheld computing devices are defined here to include only palm-sized devices, and thus exclude desktop systems, laptops and tablet computers.

### GENERAL PROVISIONS

#### Devices used for communications and scheduling

These guidelines were developed to conform to existing software standards and to account for interoperability with Lotus Notes. Handheld computing devices to be used primarily for e-mail and scheduling must meet the following minimum requirements.

- 1) PALM operating system version 4.0 or later
- 2) Pylon Pro or Pylon Conduit software (for Lotus Notes connectivity) \*
- 3) 16MB RAM
- 4) USB, serial or other connectivity to personal computer (for Lotus Notes and other document synchronization)
- 5) Color display
- 6) Four hour battery life



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\* Several palm devices are now sold with VersaMail which will synchronize with Lotus Notes e-mail, and while it can be used for this purpose without purchasing Pylon Conduit or Pylon Pro, it is not supported by the Management Information Services Program.

Although not required, the following items are recommended:

- 1) Sturdy carrying case or cover to protect the screen.
- 2) An external keyboard to make typing easier.
- 3) Avantgo Documents to Go version 4 professional or higher which includes Dataviz Mail to send and receive attachments.
- 4) DBCleaner, a freeware add-on, is recommended to help free up memory or space by deleting one or more databases such as your calendar or inbox without having to hard reset the handheld.

#### Devices used for spatial data collection

Handheld computing devices to be used for collecting spatial data must meet the following minimum requirements:

- 1) Windows CE operating system, version 2.11, 2.12, or 3.0
- 2) Utilize one of the following processors:
  - i) Hitachi SH3
  - ii) Hitachi SH4
  - iii) XScale
  - iv) StrongARM
  - v) MIPS
  - vi) x86
- 3) 32MB RAM
- 4) One serial port (for interfacing with Global Positioning System satellite receivers)
- 5) Sunlight-readable color display (thin film transistor or TFT)
- 6) Four-hour battery life
- 7) Sturdy carrying case or cover

Although not required, units that do not meet the following criteria may be inadequate for some field data collection activities or may be so marginally functional that users may find them undesirable or unproductive. Therefore these additional items are highly recommended:

- 1) 64MB RAM (to allow ample application processing)
- 2) One GB Flash memory (for solid-state storage of data and applications)
- 3) Eight-hour battery life (or spare four-hour battery packs)
- 4) Ruggedized unit (waterproof, shockproof)



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5) Vbscript.dll installed in Windows folder or in ROM (for ArcPad customization)